

# Yongmin Liu

## List of Publications by Year in descending order

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78  
papers

7,811  
citations

70961

41  
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76769

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79  
docs citations

79  
times ranked

6844  
citing authors

#	ARTICLE	IF	CITATIONS
1	3D direct printing of mechanical and biocompatible hydrogel meta-structures. <i>Bioactive Materials</i> , 2022, 10, 48-55.	8.6	13
2	Rapid Identification of DNA Fragments through Direct Sequencing with Electro-Optical Zero-Mode Waveguides. <i>Advanced Materials</i> , 2022, 34, e2108479.	11.1	8
3	Near-Infrared Reflection Modulation Through Electrical Tuning of Hybrid Graphene Metasurfaces. <i>Advanced Optical Materials</i> , 2022, 10, .	3.6	18
4	Reconfigurable Vector Vortex Beams Using Spoof Surface Plasmon Ring Resonators. <i>IEEE Transactions on Antennas and Propagation</i> , 2022, 70, 6795-6803.	3.1	8
5	Pushing the Limits of Functionality-Multiplexing Capability in Metasurface Design Based on Statistical Machine Learning. <i>Advanced Materials</i> , 2022, 34, e2110022.	11.1	87
6	Deep learning for the design of photonic structures. <i>Nature Photonics</i> , 2021, 15, 77-90.	15.6	512
7	Polarization Shaping of Free-Electron Radiation by Gradient Bianisotropic Metasurfaces. <i>Laser and Photonics Reviews</i> , 2021, 15, 2000426.	4.4	36
8	Self-Assembly of Silica-Gold Core-Shell Microparticles by Electric Fields Toward Dynamically Tunable Metamaterials. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 14417-14422.	4.0	11
9	Interfacing photonics with artificial intelligence: an innovative design strategy for photonic structures and devices based on artificial neural networks. <i>Photonics Research</i> , 2021, 9, B135.	3.4	52
10	Realizing Colorful Holographic Mimicry by Metasurfaces. <i>Advanced Materials</i> , 2021, 33, e2005864.	11.1	70
11	Demonstration of microwave plasmonic-like vortices with tunable topological charges by a single metaparticle. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	9
12	Electrically Driven Tunable Broadband Polarization States via Active Metasurfaces Based on Joule-Heat-Induced Phase Transition of Vanadium Dioxide. <i>Laser and Photonics Reviews</i> , 2021, 15, 2100155.	4.4	57
13	Artificial Intelligence Meets Engineered Photonic Materials: introduction to special issue. <i>Optical Materials Express</i> , 2021, 11, 3431.	1.6	0
14	Optical Pulling Forces Enabled by Hyperbolic Metamaterials. <i>Nano Letters</i> , 2021, 21, 10431-10437.	4.5	18
15	Polariton Photonics Using Structured Metals and 2D Materials. <i>Advanced Optical Materials</i> , 2020, 8, 1901090.	3.6	15
16	Accelerating the Design of Photonic Metamaterials by Artificial Intelligence. , 2020, , .		0
17	A data-efficient self-supervised deep learning model for design and characterization of nanophotonic structures. <i>Science China: Physics, Mechanics and Astronomy</i> , 2020, 63, 1.	2.0	47
18	All-Optical Manipulation of Magnetization in Ferromagnetic Thin Films Enhanced by Plasmonic Resonances. <i>Nano Letters</i> , 2020, 20, 6437-6443.	4.5	21

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19	Harnessing Evanescent Waves by Bianisotropic Metasurfaces. <i>Laser and Photonics Reviews</i> , 2020, 14, 1900244.	4.4	33
20	All-Optical Helicity-Dependent Switching in Hybrid Metal-Ferromagnet Thin Films. <i>Advanced Optical Materials</i> , 2020, 8, 2000379.	3.6	15
21	Microwave-Vortex-Beam Generation Based on Spoof-Plasmon Ring Resonators. <i>Physical Review Applied</i> , 2020, 13, .	1.5	26
22	Experimental Demonstration of Multidimensional and Multifunctional Metalenses Based on Photonic Spin Hall Effect. <i>ACS Photonics</i> , 2020, 7, 512-518.	3.2	62
23	Nonreciprocal Isolation and Wavelength Conversion via a Spatiotemporally Engineered Cascaded Cavity. <i>Physical Review Applied</i> , 2020, 13, .	1.5	5
24	Ultrafast optical manipulation of magnetic order in ferromagnetic materials. <i>Nano Convergence</i> , 2020, 7, 35.	6.3	33
25	Polarization-dependent near-field phonon nanoscopy of oxides: SrTiO <sub>3</sub> , LiNbO <sub>3</sub> , and PbZr <sub>0.2</sub> Ti <sub>0.8</sub> O <sub>3</sub> . <i>Physical Review B</i> , 2019, 100, .	1.1	21
26	Edge Doping Effect to the Surface Plasmon Resonances in Graphene Nanoribbons. <i>Journal of Physical Chemistry C</i> , 2019, 123, 19820-19827.	1.5	8
27	Complete Control of Smith-Purcell Radiation by Graphene Metasurfaces. <i>ACS Photonics</i> , 2019, 6, 1947-1954.	3.2	47
28	Probabilistic Representation and Inverse Design of Metamaterials Based on a Deep Generative Model with Semi-Supervised Learning Strategy. <i>Advanced Materials</i> , 2019, 31, e1901111.	11.1	332
29	Photonic Heterostructures for Spin-Flipped Beam Splitting. <i>Physical Review Applied</i> , 2019, 12, .	1.5	13
30	Controlling the degrees of freedom in metasurface designs for multi-functional optical devices. <i>Nanoscale Advances</i> , 2019, 1, 3786-3806.	2.2	30
31	Manipulating Cherenkov Radiation and Smith-Purcell Radiation by Artificial Structures. <i>Advanced Optical Materials</i> , 2019, 7, 1801666.	3.6	40
32	Plasmonic-Enhanced Cholesteric Films: Coassembling Anisotropic Gold Nanorods with Cellulose Nanocrystals. <i>Advanced Optical Materials</i> , 2019, 7, 1801816.	3.6	44
33	A Metamaterial for Superscattering Light. <i>Physics Magazine</i> , 2019, 12, .	0.1	0
34	Dual-mode subwavelength trapping by plasmonic tweezers based on V-type nanoantennas. <i>Optics Letters</i> , 2019, 44, 319.	1.7	19
35	Dynamic Plasmonic Color Generation Based on Phase Transition of Vanadium Dioxide. <i>Advanced Optical Materials</i> , 2018, 6, 1700939.	3.6	138
36	Enhancing circular dichroism by chiral hotspots in silicon nanocube dimers. <i>Nanoscale</i> , 2018, 10, 8779-8786.	2.8	64

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37	Self-Induced Backaction Optical Pulling Force. <i>Physical Review Letters</i> , 2018, 120, 123901.	2.9	51
38	Dynamically Switching the Polarization State of Light Based on the Phase Transition of Vanadium Dioxide. <i>Physical Review Applied</i> , 2018, 9, .	1.5	53
39	Infrared Plasmonic Resonators Based on Self-Assembled Core-Shell Particles. <i>ACS Photonics</i> , 2018, 5, 844-851.	3.2	6
40	A Chiral Meta-Mirror Enabled Linear and Nonlinear Chiroptical Responses. , 2018, , .		0
41	Deep-Learning-Enabled On-Demand Design of Chiral Metamaterials. <i>ACS Nano</i> , 2018, 12, 6326-6334.	7.3	612
42	Graphene-metal hybrid metamaterials for strong and tunable circular dichroism generation. <i>Optics Letters</i> , 2018, 43, 2636.	1.7	44
43	Efficient Generation of Microwave Plasmonic Vortices via a Single Deep-Subwavelength Meta-Particle. <i>Laser and Photonics Reviews</i> , 2018, 12, 1800010.	4.4	32
44	Origami-Based Reconfigurable Metamaterials for Tunable Chirality. <i>Advanced Materials</i> , 2017, 29, 1700412.	11.1	193
45	Inverse Design of Dielectric Resonator Cloaking Based on Topology Optimization. <i>Plasmonics</i> , 2017, 12, 1717-1723.	1.8	8
46	Dual-Band Light Focusing Using Stacked Graphene Metasurfaces. <i>ACS Photonics</i> , 2017, 4, 1770-1775.	3.2	72
47	Chiral metamirrors for broadband spin-selective absorption. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	77
48	All-Optical Chirality-Sensitive Sorting via Reversible Lateral Forces in Interference Fields. <i>ACS Nano</i> , 2017, 11, 4292-4300.	7.3	99
49	Preserving Spin States upon Reflection: Linear and Nonlinear Responses of a Chiral Meta-Mirror. <i>Nano Letters</i> , 2017, 17, 7102-7109.	4.5	124
50	Prediction of Deterministic All-Optical Switching of Ferromagnetic Thin Film by Ultrafast Optothermal and Optomagnetic Couplings. <i>Scientific Reports</i> , 2017, 7, 13513.	1.6	10
51	Ultrafast fluorescent decay induced by metal-mediated dipole-dipole interaction in two-dimensional molecular aggregates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 10017-10022.	3.3	14
52	A Broadband Optical Diode for Linearly Polarized Light Using Symmetry-Breaking Metamaterials. <i>Advanced Optical Materials</i> , 2017, 5, 1700600.	3.6	52
53	Unidirectional Excitation of Radiative-Loss-Free Surface Plasmon Polaritons in $P$ -Symmetric Systems. <i>Physical Review Letters</i> , 2017, 119, 077401.	2.9	43
54	Controlling the Bidirectional Circular Polarization States Using Ultrathin Back-to-Back Quarter-Wave Plates Cavity. <i>Scientific Reports</i> , 2017, 7, 15257.	1.6	1

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55	Deep sub-wavelength nanofocusing of UV-visible light by hyperbolic metamaterials. Scientific Reports, 2016, 6, 38645.	1.6	33
56	Near-field surface plasmons on quasicrystal metasurfaces. Scientific Reports, 2016, 6, 26.	1.6	27
57	Optical chiral metamaterials: a review of the fundamentals, fabrication methods and applications. Nanotechnology, 2016, 27, 412001.	1.3	282
58	Circular Dichroism Metamirrors with Near-Perfect Extinction. ACS Photonics, 2016, 3, 2096-2101.	3.2	240
59	Manipulating Smith-Purcell Emission with Babinet Metasurfaces. Physical Review Letters, 2016, 117, 157401.	2.9	108
60	Asymmetric excitation of surface plasmons by dark mode coupling. Science Advances, 2016, 2, e1501142.	4.7	57
61	Graphene Plasmonic Metasurfaces to Steer Infrared Light. Scientific Reports, 2015, 5, 12423.	1.6	190
62	An Active Metamaterial Platform for Chiral Responsive Optoelectronics. Advanced Materials, 2015, 27, 4377-4383.	11.1	70
63	Line Degeneracy and Strong Spin-Orbit Coupling of Light with Bulk Bianisotropic Metamaterials. Physical Review Letters, 2015, 115, 067402.	2.9	40
64	Plasmonic metamaterials. Nanotechnology Reviews, 2014, 3, .	2.6	77
65	Thermal plasmonic interconnects in graphene. Physical Review B, 2014, 90, .	1.1	33
66	Metasurfaces for manipulating surface plasmons. Applied Physics Letters, 2013, 103, .	1.5	139
67	Giant Suppression of Photobleaching for Single Molecule Detection via the Purcell Effect. Nano Letters, 2013, 13, 5949-5953.	4.5	69
68	Recent advances in transformation optics. Nanoscale, 2012, 4, 5277.	2.8	89
69	Compact Magnetic Antennas for Directional Excitation of Surface Plasmons. Nano Letters, 2012, 12, 4853-4858.	4.5	165
70	Optical Forces in Hybrid Plasmonic Waveguides. Nano Letters, 2011, 11, 321-328.	4.5	213
71	Metamaterials: a new frontier of science and technology. Chemical Society Reviews, 2011, 40, 2494.	18.7	855
72	Plasmonic Luneburg and Eaton lenses. Nature Nanotechnology, 2011, 6, 151-155.	15.6	274

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73	Transformational Plasmon Optics. Nano Letters, 2010, 10, 1991-1997.	4.5	229
74	Fluorescence enhancement by a two-dimensional dielectric annular Bragg resonant cavity. Optics Express, 2010, 18, 25029.	1.7	13
75	Optical Negative Refraction in Bulk Metamaterials of Nanowires. Science, 2008, 321, 930-930.	6.0	798
76	All-angle negative refraction and imaging in a bulk medium made of metallic nanowires in the visible region. Optics Express, 2008, 16, 15439.	1.7	219
77	Subwavelength Discrete Solitons in Nonlinear Metamaterials. Physical Review Letters, 2007, 99, 153901.	2.9	187
78	Plasmon resonances of strongly coupled nanodisks. , 2007, , .		0